eas ſugere exiſtimamus. From which Deſcription, they ſeem to be a kind of Plant-Animal that adheres to a Rock, and theſe ſmall *fibres* or threads which we have deſcribed, ſeem to have been the Veſſels which ('tis very probable) were very much bigger whil'ſt the *Interſtitia* were fill'd (as he affirms) with a mucous, pulpy or fleſhy ſubſtance; but upon the drying were ſhrunk into the bigneſs they now appear.

The texture of it is ſuch, that I have not yet met with any other body in the world that has the like, but onely one of a larger ſort of Sponge (which is preſerv'd in the *Muſeum Harveanum* belonging to the moſt Illuſtrious and moſt learned Society of the *Phyſicians* of *London*) which is of a horney, or rather of a *petrify'd* ſubſtance. And of this indeed, the texture and make is exactly the ſame with common Sponges, but onely that both the holes and the *fibres*, or texture of it is exceedingly much bigger, for ſome of the holes were above an Inch and half over, and the *fibres* and *texture* of it was bigg enough to be diſtinguiſhed eaſily with ones eye, but conſpicuouſly with an ordinary ſingle *Microſcope*. And theſe indeed, ſeem'd to have been the habitation of ſome Animal; and examining *Ariſtotle*, I find a very conſonant account hereunto, namely, that he had known a certain little Animal, call'd *Pinnothera*, like a Spider, to be bred in thoſe caverns of a Sponge, from within which, by opening and cloſing thoſe holes, he inſnares and catches the little Fiſhes; and in another place he ſays, That 'tis very confidently reported, that there are certain Moths or Worms that reſide in the cavities of a Sponge, and are there nouriſhed: Notwithſtanding all which Hiſtories, I think it well worth the enquiring into the Hiſtory and nature of a Sponge, it ſeeming to promiſe ſome information of the Veſſels in Animal ſubſtances, which (by reaſon of the ſolidity of the interſerted fleſh that is not eaſily remov'd, without deſtroying alſo thoſe interſpers'd Veſſels) are hitherto undiſcover'd; whereas here in a Sponge, the *Parenchyma*, it ſeems, is but a kind of mucous gelly, which is very eaſily and cleerly waſh'd away.

The reaſon that makes me imagine, that there may probably be ſome ſuch texture in Animal ſubſtances, is, that examining the texture of the filaments of tann'd Leather, I find it to be much of the ſame nature and ſtrength of a Sponge; and with my *Microſcope*, I have obſerv'd many ſuch joints and knobs, as I have deſcribed in Sponges, the *fibres* alſo in the hollow of ſeveral ſorts of Bones, after the Marrow has been remov'd, I have found ſomewhat to reſemble this texture, though, I confeſs, I never yet found any texture exactly the ſame, nor any for curioſity comparable to it.

The filaments of it are much ſmaller then thoſe of Silk, and through the *Microſcope* appear very neer as tranſparent, nay, ſome parts of them I have obſerv'd much more.

Having examin'd alſo ſeveral kinds of Muſhroms, I finde their texture to be ſomewhat of this kind, that is, to conſiſt of an infinite company of ſmall filaments, every way contex'd and woven together, ſo as to make a kind of cloth, and more particularly, examining a piece of Touch-wood (which is a kind of *Jews-ear*, or Muſhrom, growing here in *England* alſo, on

on ſeveral ſorts of Trees, ſuch as Elders, Maples, Willows, *&c.* and is commonly call'd by the name of *Spunk*; but that we meet with to be ſold in Shops, is brought from beyond Seas) I found it to be made of an exceeding delicate texture: For the ſubſtance of it feels, and looks to the naked eye, and may be ſtretch'd any way, exactly like a very fine piece of *Chamois* Leather, or waſh'd Leather, but it is of ſomewhat a browner hew, and nothing neer ſo ſtrong; but examining it with my *Microſcope*, I found it of ſomewhat another make then any kind of Leather; for whereas both *Chamois*, and all other kinds of Leather I have yet view'd, conſiſt of an infinite company of filaments, ſomewhat like buſhes interwoven one within another, that is, of bigger parts or ſtems, as it were, and ſmaller branchings that grow out of them; or like a heap of Ropes ends, where each of the larger Ropes by degrees ſeem to ſplit or untwiſt, into many ſmaller Cords, and each of thoſe Cords into ſmaller Lines, and thoſe Lines into Threads, *&c.* and theſe ſtrangely intangled, or interwoven one within another: The texture of this Touch-wood ſeems more like that of a Lock or a Fleece of Wool, for it conſiſts of an infinite number of ſmall filaments, all of them, as farr as I could perceive, of the ſame bigneſs like thoſe of a Sponge, but that the *filaments* of this were not a twentieth part of the bigneſs of thoſe of a Sponge; and I could not ſo plainly perceive their joints, or their manner of interweaving, though, as farr as I was able to diſcern with that *Microſcope* I had, I ſuppoſe it to have ſome kind of reſemblance, but the joints are nothing neer ſo thick, nor without much trouble viſible.

The filaments I could plainly enough perceive to be even, round, cylindrical, tranſparent bodies, and to croſs each other every way, that is, there were not more ſeem'd to lie *horizontally* then *perpendicularly* and thwartway, ſo that it is ſomewhat difficult to conceive how they ſhould grow in that manner. By tearing off a ſmall piece of it, and looking on the ragged edge, I could among ſeveral of thoſe *fibres* perceive ſmall joints, that is, one of thoſe hairs ſplit into two, each of the ſame bigneſs with the other out of which they ſeem'd to grow, but having not lately had an opportunity of examining their manner of growth, I cannot poſitively affirm any thing of them.

But to proceed, The ſwelling of Sponges upon wetting, and the riſing of the Water in it above the ſurface of the Water that it touches, are both from the ſame cauſe, of which an account is already given in the ſixth Obſervation.

The ſubſtance of them indeed, has ſo many excellent properties, ſcarce to be met with in any other body in the world, that I have often wondered that ſo little uſe is made of it, and thoſe onely vile and ſordid; certainly, if it were well conſider'd, it would afford much greater conveniencies.

That uſe which the Divers are ſaid to make of it, ſeems, if true, very ſtrange, but having made trial of it my ſelf, by dipping a ſmall piece of it in very good Sallet-oyl, and putting it in my mouth, and then keeping my mouth and noſe under water, I could not find any ſuch thing; for I